

Tetra Tech, Inc.

4213 State Street, Suite 100 Santa Barbara, CA 93110-2847 VOICE (805) 681-3100 FAX (805) 681-3108 Project: Vandenberg Air Force Base

Log of Well No. 8-MW-18

Location: Approximately 53 feet north of Building 715 northern entrance, and 27 feet from Building 715 north-east corner, SLC-4E.

Date Started: 9/25/02 9/26/02 4" PVC Blank Casing: 0 ft bgs to Completed: from 120 ft bgs David Springer, R.G. # 6962 DS 6/2/03 0.010" Screening Casing: Checked By: Logged By: Dave Fenity from 120 ft bgs to 130 ft bgs Ramon Zepeda, BC² Drilled By: from 111 ft bgs Environmental Corp. Bentonite/Cement Grout: 3 ft bgs to Drilling Equipment: CME 95 HSA, 6" and 8" I.D. Bentonite Transitional Seal: from 111 ft bgs to 116 ft bgs Sampling Equipment: 2-inch I.D. Split Spoon/Encore Sand Filter Pack: from 116 ft bgs to 130 ft bgs GS Elev.: 484.36 ft above MSL TD: 130 ft bgs

TOC Elev.: 484.03 ft above MSL

(ft. bgs)		MATERIAL DESCRIPTION	Material Symbol	Material Type	Constr	ell uction	Sample	Blow Counts per 6"	Percent Recovery	PID (ppm) Amb/Smp	REMARKS
		concrete.							100	0/0	9/25/02
	-	Sand, strong brown (7.5YR 5/6), fine grained, rounded,		SP			4				0845 hrs begin drilling
		slightly moist, Orcutt Sand.		ļ							drining
							4				
	-				**************************************						
							ı				
	_								100	0/0	
5							\bigvee		100	0/0	
							\triangle				
	-										
	_						4				
	-						J				
							1				
							\ /	7	100	0/0	
0		fine to medium grained, rounded to subrounded, moist,					XI	12	100	0/0	
		medium density.						14			
	_						4				
			: : : :				I				
							J				
	-						1				
	_						ı				
		•					4	İ			
5		yellowish brown (10YR 5/6), subrounded to					$\sqrt{ }$	9	100	0/0	
		subangular.					\setminus	11 17			
	-										
							4				
	-	1									
			$\cdot : : \cdot]$				Į				
	_							11	100	0/0	
0			<u>: : : .</u>				\triangle	17			

126 ft bgs 👱 Groundwater depth during drilling

TC Number: K963-06

126.20 ft btoc Groundwater depth after well development on:

TETRA TECH, INC.

10/11/02 Page 1 of 6



TC Number: K963-06

Tetra Tech, Inc.4213 State Street, Suite 100 Santa Barbara, CA 93110-2847 VOICE (805) 681-3100 FAX (805) 681-3108

Project: Vandenberg Air Force Base

Log of Well No. 8-MW-18

Location: Approximately 53 feet north of Building 715 northern entrance, and 27 feet from Building 715 north-east corner, SLC-4E.

<u>ن</u>			Well State Construction State								
(ft. bgs)		MATERIAL DESCRIPTION	Material Symbol	Material Type	Cons	struction	Sample	Blow Counts per 6"	Percent Recovery	PID (ppm) Amb/Smp	REMARKS
20	_	Sand, yellowish brown (10YR 5/6), fine to medium grained, rounded to subrounded, poorly graded, moist,		SP			X	21			
		medium density, trace silt, Orcutt Sand.									
	_						1				
	_										
							ŀ				
	_										
25							\bigvee	15	100	0/0	
		brownish yellow (10YR 6/6), rounded.					Ň	20 25			
	_										
	_						4				
	_						4				
	_										
							$\setminus /$	16	100	0/0	
0			:				X	20 20			
	_							20			
							1				
	_						1				
									• • • •	0.00	
5	_	olive yellow (2.5Y 6/6), medium grained, slightly					\bigvee	18 21	100	0/0	
		moist.					\triangle	25			
-	-						Į				
	_										
			$\cdot \cdot \cdot $								
ŀ	-		: :: :				1				
0		fine to medium grained.					\bigvee	25	100	0/0	
-		and to medium gramed.						50			
-	-										
-	_						4				
-	-	ļ					4			ł	
-	_		::								
5							X	22 23	100	0/0	

TETRA TECH, INC.

Page 2 of 6



Tetra Tech, Inc. 4213 State Street, Suite 100 Santa Barbara, CA 93110-2847 VOICE (805) 681-3100 FAX (805) 681-3108

Project: Vandenberg Air Force Base Log of Well No. 8-MW-18

Location: Approximately 53 feet north of Building 715 northern entrance, and 27 feet from Building 715 north-east corner, SLC-4E.

(S;			Material Symbol	Material Type							corner, SLC-4E.	
(ft. bgs)		MATERIAL DESCRIPTION			Well Construction		Sample	Blow Counts per 6"	Percent Recovery	PID (ppm) Amb/Smp	REMARKS	
45		Sand, olive yellow (2.5Y 6/6), fine to medium	1::::	SP			X	50				
	-	grained, rounded to subrounded, poorly graded, slightly moist, medium density, trace silt, Orcutt Sand.										
	ļ	bignery moist, medium density, trace sitt, ordat band.										
	-			1								
				1								
			::::									
			: :. <i>::</i> :					27	100	0/0		
0	—	yellowish brown (10YR 5/6).		1			X	50	100			
		yonowish orown (10 1 K 5/0).										
	_											
	_		:::::									
	_		-:-:				1					
	_											
			:::::				$\overline{\ \ }$	21	100	0/0		
5			[: ::::				X	23				
1	_						4	31				
	_											
	_											
			-:				1					
ł	_											
							4					
	-											
0							\bigvee	32	100	0/0		
۱		Sand, light yellowish brown (10YR 6/4), fine to medium grained, rounded to subrounded, slightly moist.	::::				\triangle	50		}		
		granica, rounded to subrounded, slightly moist.	:									
			[::::]				J					
-	_		[: . :									
	_						4					
	_											
			:::::									
5	_	dark yellowish brown (10YR 4/4), rounded, trace silt,	[: : :]				X	26 50	100	0/0		
		moist.	: : :					50				
ŀ	-		: : :				4					
			<u> </u> : : :									
-	_						Į					
-	_						1					
									ļ			
-	-											
0			::::				X	9	100	0/0		
					(((())	<i>VX(//)</i> /	<u> </u>	12	J			



Tetra Tech, Inc. 4213 State Street, Suite 100 Santa Barbara, CA 93110-2847 VOICE (805) 681-3100 FAX (805) 681-3108

Project: Vandenberg Air Force Base

Log of Well No. 8-MW-18

Location: Approximately 53 feet north of Building 715 northern entrance and 27 feet from Building 715 north-east corner, SLC-4E.

Depth (ft. bgs)	MATERIAL DESCRIPTION	Material Symbol	Material Type	Well Construction	Sample	Blow Counts per 6"	Percent Recovery	PID (ppm) Amb/Smp	REMARKS
70	Sand, yellow (10YR 7/6), medium grained, subrounded, poorly graded, slightly moist, trace silt, Orcutt Sand.	N	SP		S	15		PI A	
75	-					10 13 19	100	0/0	
-	-					22 50	100	0/0	
-	light yellowish brown (2.5Y 6/4), fine to medium grained, rounded.				X	27 50	100	0/0	
80	light yellowish brown (10YR 6/4).					29 50	100	0/0	
-	-				X	31 50	100	0/0	
85 -	medium grained.					32 50	100	0/0	
_	Sand, light yellowish brown (10YR 6/4), fine to medium		sw		X	27 50	100	0/0	
-	grained, rounded, well graded, slightly moist, trace silt, Orcutt Sand.					26 50	100	0/0	
90	-					35 50 50	100	0/0	
_	brown (10YR 5/3), trace clay.					28 50	100	0/0	
						29 50	100	0/0	
95						33	100	0/0	



TC Number: K963-06

Tetra Tech, Inc. 4213 State Street, Suite 100 Santa Barbara, CA 93110-2847 VOICE (805) 681-3100 FAX (805) 681-3108

Project: Vandenberg Air Force Base

Log of Well No. 8-MW-18

Location: Approximately 53 feet north of Building 715 northern entrance and 27 feet from Building 715 north-east corner, SLC-4E.

_	_		and 27 feet from Building 715 north-east corner, SLC-4E.									
(ft. bgs)		MATERIAL DESCRIPTION	Material Symbol	Material Type	Well Construction	Sample	Blow Counts per 6"	Percent Recovery	PID (ppm) Amb/Smp	REMARKS		
95		Sand, yellowish brown (10YR 5/6), fine to medium	:::::::	SW			50					
	_	grained, rounded, well graded, slightly moist, trace					27	100	0,0			
		clay, Orcutt Sand.					37 50	100	0/0			
	-					%/	30					
							26	100	0/0	}		
ĺ	-	yellowish brown (10YR 5/4).				ØX.	50			9/25/02		
		, ,					Ì			1230 hours		
	_					/	29	100	0/0	soil sample		
						∭X	50	•		collected, V8MWN-98		
00	—	trace silt, moist.					50			A 01AT AN IA-20		
		,					17	100	0/0			
		yellowish brown (10YR 5/6).					24					
		John Will Stown (10 FR 570).				/ /	50					
	-						15	100	0/0			
						\mathbb{N}	30	}	🐧			
	_					$M \wedge$	35					
			-:::::::						Ì			
Ì	_					% \ 7	24	100	0/0			
							36					
)5			-:::::::			/ \	50					
ŀ												
-	-	fine grained, very moist.					27	100	0/0			
		inic granicu, very moist.					50					
-	-							100	0.0			
							25 50	100	0/0			
	-						30			9/25/02		
İ							22	100	0/0	1245 hours collec		
-	-						26	100	0/0	physical		
						∭/\	50			parameters soil		
10	—	fine to madism amin of formally								sample,		
	ŀ	fine to medium grained, few silt.				% 7	17	100	0/0	V8MWNH-108		
-	_						22	100	0/0			
ı							36					
-	-		:::::::									
							18	100	0/0			
-	- }	Sand, dark yellowish brown (10YR 4/4), fine to medium				X	21					
	-	grained, rounded to subrounded, poorly graded, very	: : .	SP		\triangle	31		ł			
-	-	moist, trace clay, trace silt, trace coarse sand,	[.: :]				20					
		Orcutt Sand.	[:.::			ΙX	29 50	100	0/0			
5							50	İ				
			. · · :				26	,,,,	0.00			
-	-		· . : · .			. XI	26 50	100	0/0			
				ľ			30	}				
-	-	dark yellowish brown (10YR 4/6), rounded, slightly	: : :				•					
		wet.	::::	ŀ		X		100	0/0			
-	-			j.			50					
]:								
-	_							100	0/0			
- [İ		ŀ			50	İ				
20												



Tetra Tech, Inc.

4213 State Street, Suite 100 Santa Barbara, CA 93110-2847 VOICE (805) 681-3100 FAX (805) 681-3108 Project: Vandenberg Air Force Base

Log of Well No. 8-MW-18

Location: Approximately 53 feet north of Building 715 northern entrance, and 27 feet from Building 715 north-east corner, SLC-4E.

	and 27 feet from Building 713 north-east corner, SLC-4E.									
Depth (ft. bgs)		Material	Symbol Material	e Cor	Well nstruction	Sample	Blow Counts per 6"	Percent Recovery	PID (ppm) Amb/Smp	REMARKS
120	Sand, dark yellowish brown (10YR 4/6), fingrained very moist, trace clay, trace silt, trasand, Orcutt Sand.	ne to medium	S	P		X	29 50 31 50	100 100	0/0	9/25/02 1245 hours,
	trace gravel, subangular.						27 50	100	0/0	soil sample collected, V8MWN-121
105						X	28 50	100	0/0	
125	_		<u>1</u>	7 - 7 -			14 17 24	100	0/0	
	fat Clay, light yellowish brown (2.5YR 6/3) slightly moist to moist), plastic, stiff,	CI	I			75	33	0/0	
130						1				
	_									9/25/02 1255 hours End drilling,total depth 130 ft bgs
	_									depin 150 tt ogs
	-									
135										
ŀ	_									
140										
	-									
-	_									
-	_									Page 6 of 6
145										
T	TC Number: K963-06 TETRA TECH, INC. Page 6 of 6									